

1 REDUCED PIN-COUNT SYSTEM INTERFACE FOR
2 GIGABIT ETHERNET PHYSICAL LAYER DEVICES

3 Abstract of the Disclosure

4 A Gigabit Media Independent Interface (RGMI), which is adapted to also
5 implement a ten bit interface (RTBI) that is intended to be an alternative to both the IEEE
6 802.3z GMII and the TBI is disclosed. The interface has a reduced number of input and
7 output pins, i.e., pin-count, that can implement the above BMII and TBI standards. More
8 particularly, the interface reduces the number of pins required to interconnect the MAC and
9 the PHY from a maximum of 28 pins (TBI) to 12 pins in a cost effective and technology
10 independent manner. The RGMI maps pins to transfer data at the same data rate with
11 control functionality with a minimum number of input and output pins, and does so by
12 utilizing both the rising and falling edges of the clock signal and complies with existing
13 interface specifications set forth in the IEEE standards.